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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,183	09/17/2003	Ganesan Vaidyanathan Panchapagesan	132351	8765
6147	7590	11/14/2005	EXAMINER	
GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309			COCKS, JOSIAH C	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,183

Applicant(s)

PANCHAPAGESAN ET AL.

Examiner

Josiah Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8,10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's request for continued examination and amendment filed on 10/25/2005 have been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. As best can be determined, none of applicant's figures show the burner grate and burner port structure and relationship recited in applicant's claim 10. This claim requires a burner grate structure having a plurality of humps, integrally formed in a glass ceramic cooktop. This burner grate structure appears to be shown in applicant's Fig. 5. However, claim 10 also requires a burner with flame-free portions positioned to coincide with the burner grate. Applicant's Fig. 5 does not appear to show such a relationship as the burner grates 64 coincide with the flame restricted (and not flame free) regions (72). Therefore, these features of claim 10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 10 is objected to because of the following informalities: In the last line of claim 10, it appears the reference to “the a” burner grate should read simply “the” burner grate. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,328,357 to Riehl (“Riehl”).

Riehl discloses in the specification and Figs. 1-11 an invention in the same field of endeavor as applicant’s invention and as described in applicant’s claim 20. In particular, Riehl shows a burner comprising a first plurality of burner ports (35) providing an unrestricted flame flow out of the burner (see Fig. 4) and a second plurality of burner ports (70) configured to provide a second modified flame flow and arranged in a radial pattern.(see Fig. 4).

In regard to the recitation that the flame from the second ports is restricted or directed away from a complementary burner grate, this is not regarded as positive recitation of a burner grate. Instead, this recitation is merely regarded as a statement of intended use of the second burner ports in providing restriction of direction of flame. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this case, the burner ports must merely be capable of directing the flame away from any grate that would be placed on the recited burner. Accordingly, as the restricted second burner ports (76) would be capable of restricting flame formation of any burner grate placed on

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the burner of Riehl that is “complementary” with these ports (76), this claim language is met by Riehl.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, 4, 5, 6, 8, 10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,931,152 to Fafet et al. (“Fafet”) (cited by applicant) in view of U.S. Patent No. 5,899,681 to Maughan (“Maughan”) and U.S. Patent No. 2,320,754 to Sherman (“Sherman”).

Fafet discloses in the specification and Figs. 1-5 an invention in the same field of endeavor as applicant's invention and similar to that described in applicant's claims 1, 2, 4, 5, 6, 8, 10, and 20. In particular, Fafet shows a burner assembly for a cooking appliance including burner grate with a plurality of humps (5) integrally formed in a glass ceramic cooktop and distributed around an opening in the cooktop (see Figs. 1, 3, and 5 and col. 4, line 59 through col. 5, line 22). Fafet also discloses a burner (3) positioned in the opening where the burner includes an arrangement of burner ports (see Fig. 2).

Fafet does not disclose that the burner ports restrict flame formation as a function of non-symmetrical spacing or a plurality of second ports that restrict flame formation. Fafet also possibly does not disclose a plurality of flame-free portions between the burner ports and positioned to cause flames produced by the burner to be directed away from the burner grate.

Maughan teaches a burner assembly in the same field of endeavor as applicant's invention and Fafet. In Maughan, a burner assembly (see Fig. 1) of the same type as that shown in Fafet (see 3 of Fafet) is arranged to include first burner ports (32) and second burner ports (62). The second burner ports are arranged at an angle and include a single inlet end (60) and a bifurcated outlet end (see Fig. 4 and note outlet is bifurcated by section 66). This section 66 is considered to form a flame-free zone.

In regard to the limitation of claim 1 concerning non-symmetrical spacing, Maughan expressly notes that burner ports of this type of burner are typically but are not necessarily evenly spaced (see Maughan, col. 2, lines 46-49). The examiner considers this disclosure a teaching that the burner ports may be unevenly or non-symmetrically spaced.

In regard to the limitations of the claims regarding restricted and directing away flames from the burner grate. As noted above, Maughan discloses that the selection of uneven burner port spacing is understood in the art. The examiner considers that a person of ordinary skill in the art, in selecting burner port spacing, would understand that it is undesirable to include burner ports that cause flames to impinge upon the burner grate. To support this assertion the examiner turns to the reference to Sherman. Sherman teaches a burner for a cooking appliance in the same field of endeavor as applicant's invention, Fafet, and Maughan. Sherman expressly notes that it is undesirably in the art for flames from a burner to impinge upon grate prongs, as the flames may cause the finish of the prongs to burn off rendering the grates unsightly in appearance (see Sherman, page 1, lines 12-15 and page 3, lines 21-27).

Therefore, the examiner considers that a person of ordinary skill in the art would modify the burner of Fafet to incorporate the burner port configuration of Maughan as this configuration desirably provides for improved flame stability (see Maughan, col. 1, lines 42-62). Further, in selecting the burner port spacing (recognized by Maughan to be adjustable, such as in selecting unevenly/nonsymmetrical spacing, see col. 2, lines 47-49). would desirably choose to prohibit flames from the burner ports from impinging upon the burner grates to desirably prevent the flames from rendering the burner grates unsightly (see Sherman, page 1, lines 12-15 and page 3, lines 21-27).

9. Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,931,152 to Fafet et al. ("Fafet") (cited by applicant) in view of U.S. Patent No. 5,328,357 to Riehl ("Riehl") and U.S. Patent No. 2,320,754 to Sherman ("Sherman").

Fafet discloses in the specification and Figs. 1-5 an invention in the same field of endeavor as applicant's invention and similar to that described in applicant's claims 12-19. In particular, Fafet shows a burner assembly for a cooking appliance including burner grate with a plurality of humps (5) integrally formed in a glass ceramic cooktop and distributed around an opening in the cooktop (see Figs. 1, 3, and 5 and col. 4, line 59 through col. 5, line 22). Fafet also discloses a burner (3) positioned in the opening where the burner includes an arrangement of burner ports (see Fig. 2).

Fafet does not disclose a second plurality of burner ports configured to provide a second unrestricted flame flow out based at least in part upon the positioning of the burner with respect to the burner grate.

Riehl teaches a burner assembly in the same field of endeavor as applicant's invention and Fafet. In Riehl, the burner includes a first plurality of burner ports (35) providing an unrestricted flame flow out of the burner (see Fig. 4) and a second plurality of burner ports (70) configured to provide a second modified flame flow and arranged in a radial pattern.(see Fig. 4). In Riehl, it is also noted that the arrangement of flame ports may be adjusted as desired (see col. 7, lines 60-63).

In regard to the limitations of the claims regarding restricting flames from the burner grate. As noted above, Riehl discloses that the arrangement of flame ports may be adjusted as desired. The examiner considers that a person of ordinary skill in the art, in selecting burner port spacing, would understand that it is undesirable to include burner ports that cause flames to impinge upon the burner grate. To support this assertion the examiner turns to the reference to Sherman. Sherman teaches a burner for a cooking appliance in the same field of endeavor as

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applicant's invention, Fafet, and Riehl. Sherman expressly notes that it is undesirably in the art for flames from a burner to impinge upon grate prongs, as the flames may cause the finish of the prongs to burn off rendering the grates unsightly in appearance (see Sherman, page 1, lines 12-15 and page 3, lines 21-27).

Therefore, the examiner considers that a person of ordinary skill in the art would modify the burner of Fafet to incorporate the burner port configuration of Riehl as this configuration desirably provides for proper flame propagation and prevents flashback problems (see Riehl, col. 2, lines 31-34). Further, in selecting the burner port spacing (recognized by Riehl to be adjustable, such as in selecting unevenly/nonsymmetrical spacing, see col. 7, lines 60-63) would desirably choose to prohibit flames from the burner ports from impinging upon the burner grates to desirably prevent the flames from rendering the burner grates unsightly (see Sherman, page 1, lines 12-15 and page 3, lines 21-27).

Response to Arguments

10. Applicant's arguments with respect to claims 1, 2, 4-6, 8, 10, and 12-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. This action is made non-final. A THREE (3) MONTH shortened statutory period for reply has been set. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,757,801 is cited to further show the state of the art concerning flame port arrangement in burners for cooking appliances.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on weekdays from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg, can be reached at (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Any questions on access to the Private PAIR system should be directed to the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

jcc
November 9, 2005


JOSIAH COCKS
PRIMARY EXAMINER
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